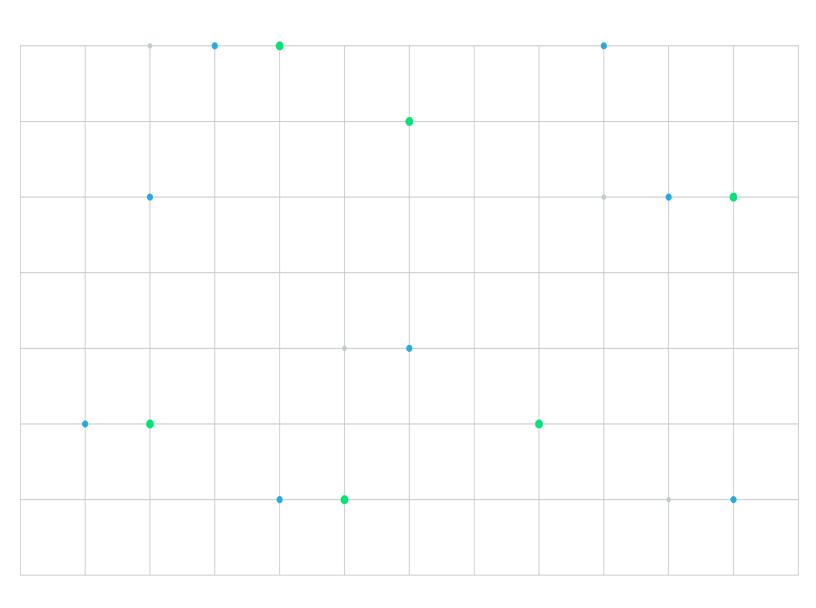


EBS Risk Management User Manual

October 25 2022



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Getting Started

The EBS Risk Management (EBS RM) application allows Credit Risk Administrators the ability to manage credit relationships, configure credit limits and monitor Credit Group utilization.

This guide describes the features and functions that allow EBS Credit Administrators to navigate EBS Risk Management and perform functions necessary for credit risk management.

Functions:

- Dashboard
- Groups
- Setting Limits / Assigning Firms in Grantee Groups
- Liquidation Mode
- Currency Rates
- Kill Switch

Wiew a video overview of EBS Risk Management application functions.

Accessing EBS Risk Management

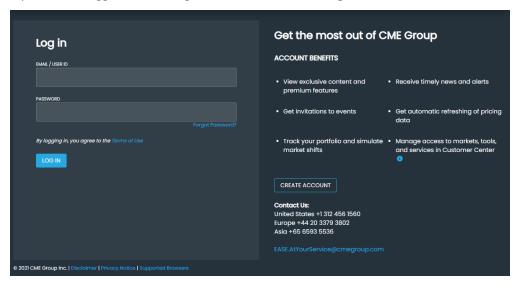
The EBS Risk Management application is accessible from the CME Customer Center menu after logging in with an authorized CME Group Login ID and password.

To request access, new users must contact their entity's verification officer to request access on their behalf using the following form: https://cmeg.co1.qualtrics.com/jfe/form/SV_bq2XVIBg0MnrRjw.



To access EBS Risk Management:

- 1. Navigate to the CME Group Login page.
- 2. If you are not logged in, enter login credentials and select Log In.



3. Authenticate your ID:

Via Duo.

OR

Enter the code that was sent to your mobile device or voice code from an automated call to your primary phone number (US only).

4. From the CME Customer Center menu, select Portfolio & Risk > EBS Risk Management.



Note: For login issues, refer to the CME Group Login page or contact Enterprise Access and System Entitlements (EASE).

Create a new CME Group Login ID, select Register by selecting the New Users pane.

Roles

Users will be assigned permission for roles that are suitable for their business function.

The following roles are available:

- **EBS Bilateral Risk Admin**: Users have full view and modification capabilities to set and view bilateral credit limits on other bilateral (spot) firms.
- EBS Bilateral Risk Viewer: Users have full view access to view information for their permissioned firms.
- EBS Prime Risk Admin: Users have full view and modification capabilities to set and view prime credit limits on firms that are their credit children (e.g. Prime Customer firms).
- EBS Prime Risk Viewer: A Prime Broker Trading Floor Viewer; users have full view access to their permissioned firms.

What's New

The list below illustrates the updates made to the EBS Risk Management user manual.

Date	Торіс	Description
October 25, 2022	<u>Dashboard</u> <u>Group - Firms</u>	 Updated dashboard screen Downloading Credit Limit
		Report
		 Searching Firms / Grantee Groups
July 19, 2022	Groups Audit Trail Email Alerts Downloading Reports	Application enhancements
July 13, 2022	Getting Started	Added link to a form to request access
March 2022	All	System enhancements added
6 October 2021	All	initial release

Dashboard

The Dashboard is the default screen that appears after accessing EBS Risk Management.

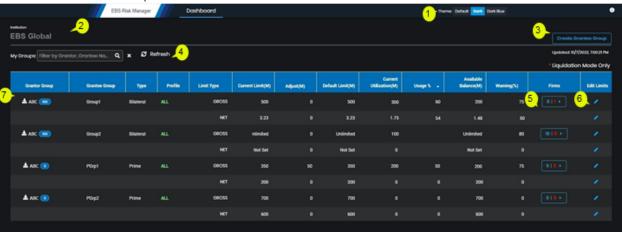
Users can view the Dashboard to monitor credit settings and Credit / Grantee Groups utilization throughout the trading day.

Using the inline editing feature, EBS Risk Admins can modify default and daily adjustment limits.

Navigating the Dashboard

Various features are available on the dashboard provide the user with the information needed to monitor the credit settings and Grantee Group utilization.

Details of each feature are presented below



1. Theme

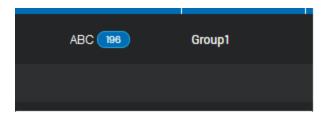
Customize the look and feel of the Dashboard by selecting a theme.

The following options are available:

Default



Dark



Dark Blue



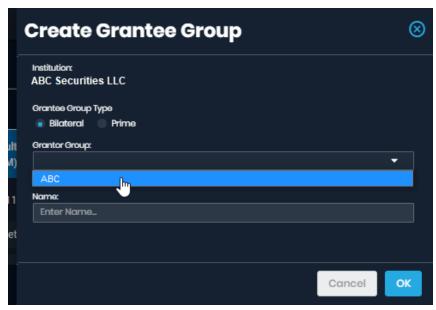
2. Institution

The institution that each firm belongs to. Firms within the same institution may be in their own Grantor Group or may be in a Grantor Group with another firm within the same institution. The risk admin is associated to the Grantor Group that extends outbound credit to Grantee Groups.

3. Create Grantee Group button

Grantee Groups are the recipients of credit and are also referred to as *Credit Groups*.

Bilateral Risk Admins can create Bilateral Grantee Groups comprised of other bilateral firms and Prime Risk Admins can create Prime Grantee Groups comprised of firms which have their credit parent in the Grantor Group.



To create a Bilateral or Prime Grantee Group:

- Select Create Grantee Group (
 Create Grantee Group (
- 2. From the panel that appears on the right side of the screen, select a **Grantee Group Type** (Bilateral / Prime).

 If permissioned for both, the Grantor Group menu displays a list of Grantor Groups the user can manage, depending on the selected *Grantee Group Type*.

- 3. Select a Grantor Group.
- 4. Specify a name for the Grantee Group, which must be unique per Grantor Group, then select OK.



Note: Firms and limits may be added to the new Grantee Group in the Grantee Group Details screen.

4. My Groups

Use the My Groups function to filter Dashboard data by specific Grantor or Grantee Groups.



The Dashboard displays all permissioned Grantor Groups, Grantee Groups their limits and trading exposure for the current trading day.

My Groups / Dashboard Filter:

- Close filter (): to collapse the filter text box.
- Magnifying glass (My Groups: Q): Expand / open the search field.
- Refresh (Refresh): Manually refresh the dashboard.
- Sort: The Dashboard sorts Grantee Groups based on the Usage (%) of the Gross Limit, by default.

Dashboard Columns:

- Grantor Group: Any permissioned Grantor Group for which the logged in user is permissioned.
 - The Unassigned counter indicates firms that are not assigned to a **Grantee Group** or the **No Credit Group**. To assign firm(s) in the Unassigned Firms list to Grantee Groups, Click on a Grantee Group **hyperlink** or the **Groups menu** item.
- **Grantee Group**: The Grantee Group associated to the permissioned Grantor Group and will be linked for direct access to limit and credit group management.
- Type: Indicates whether the Grantee Group is Bilateral or Prime.
- Profile: Indicates whether the Credit profile of the Grantee Group is set as a one-pool (All) or two-pool (TWO) credit.
- Limit Type: Displays the Gross and Net limits for each credit pool.
- Current Limit (M): The limit, in millions, displays the start of day credit limit value, which is determined by the Default limit at the start of each trading day.

The Current Limit value is view only.

- Adjust (M): An increase or decrease amount to the Current Limit made for the current trading day only.

 Selecting the Edit Limits icon will allow modifications for this field. Adjustments may be positive or negative values.
- **Default Limit (M)**: The default daily limit set for the Grantee Group.

If no Current Limit exists for the Grantee Group, the value entered for Default Limit will immediately become the Current Limit.

If a Current Limit exists and the Default Limit is modified, the modified Default Limit will become the Current Limit at the start of the next trading day.

Selecting the Edit Limits icon will allow modification of this field.

- **Current Utilization**: The credit exposure based on the trades (bilateral credit utilization) or orders and trades (prime credit utilization) for the current trading day.
- Usage (%): The percentage of exposure for each credit limit.

Usage % = Current Utilization / (Current Limit + Adjustment)

- Available Balance (M): The amount of credit remaining for the credit limit.
- Warning%: Configurable percentage of credit usage against a credit limit that will trigger an email and/or message alerts when the percentage is breached.

Breaches of Warning percentage will generate one alert per trading day unless a limit adjustment is made.

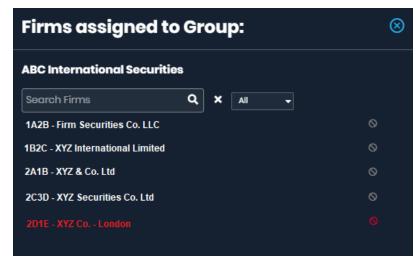
- **Firms**: A widget will display the number of firms in the Grantee Group and the number of firms that are blocked. A Risk Admin user will have the ability to select this widget and unblock firms in the Grantee Group.
- Edit Limits: Available to Risk Admins to modify limits on the Dashboard.

5. Firms

Click the Firms widget to view a list of firms that are part of a Grantee Group, view, block (), unblock (), irms.

Firms with a red icon () are blocked.

Firms can also be unblocked.



Firm Widget functions:

 Filter: All firms in the Grantee Group appear by default. Select the drop-down menu to filter by All / Blocked / Unblocked status.



- Count
 - The value in blue (e.g. 6) indicates firms in the Grantee Group.
 - The value in red (e.g. 2) indicates blocked firms.



• Search: Search for a specific firm.

Select the widget to open a panel on the right side of the screen to view a list of firms in Grantee Groups.

• Block / Unblock

EBS Risk Admin users can view and block firms in a Grantee Group.

• To block a firm, select the block () icon.

When a bilateral firm is blocked, it will prevent any firm in the Grantor Group, and their Prime Customer (PC) / Prime of Prime Customer (PoPC) credit child firms, from trading with the blocked firm.

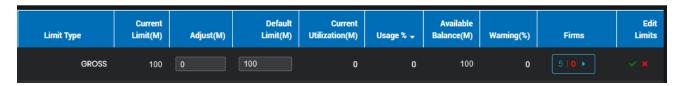
When a PC or PoPC firm is block directly, it will prevent the blocked firm from trading and the firm's working orders will be canceled.

Blocked firms are indicated by a red icon (
).

6. Modifying Limits

EBS Risk Admins can access the Dashboard to monitor limit usage and edit limits.

1. In the **Edit Limits** column, select the pencil icon for the Grantee Group *Limit Type*, then edit the **Adjust** and/or **Default Limit** fields.



2. To update the Daily Adjust and/or the Default limit value(s), select the respective editable box and enter a new limit value.

The Adjustment value adds to the Current limit and is effective immediately when saved.

This Adjustment value remains throughout the current trading day and will reset to zero (0) at the start of the next trading day.

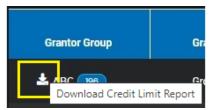
A brand new Default limit, where one previously did not exist, will become the Current Limit and take effect immediately.

A modified Default Limit will become the Current Limit and take effect at the start of the next trading day.

3. Save limit updates by selecting the **check** (■) icon or cancel any changes by selecting the **cancel** (■) icon (*Edit Limits* column).

7. Credit Limit Report

EBS users can select the [48] (download) icon to download the Credit Limit report as a comma separated value (CSV) format file.



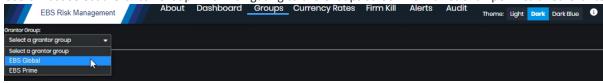
This report contains limits and utilization information for each Grantee Group.

Groups

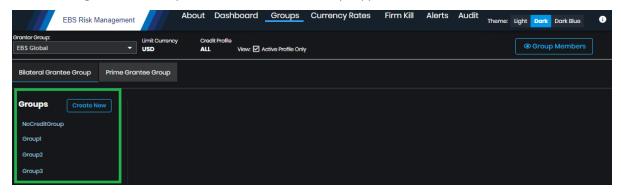
Setting Limits and Assigning Firms in Grantee Groups

Bilateral Risk and Prime Risk Admin may go to the Groups screen to view or manage Grantee Groups. Admin users will have the ability to create new Grantee Groups, manage firms, set limits and email alerts.

Users must select a Grantor Group when navigating to the Groups screen from a list of all permissioned Grantor Groups.

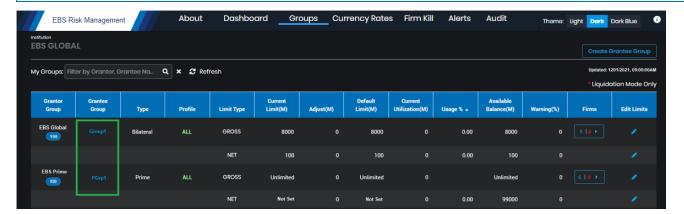


After selecting a Grantor Group, all associated Grantee Groups appear.



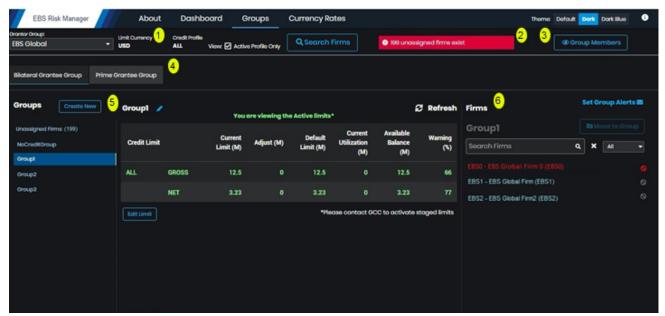
To view and manage limits, firms and email alerts, select a Grantee Group.

Note: Alternatively, selecting a Grantee Group from the Dashboard will open the Groups screen to the selected Grantee Group profile.



On the Group screen several features may be used to manage Grantee Groups, firms and their limits.

Details of each feature are discussed below.



1. Viewing Credit Profiles

The Grantor Group's active Credit Profile appears by default,

Example: If All (or One-Pool) credit profile is set then only those limits and associated data will appear.

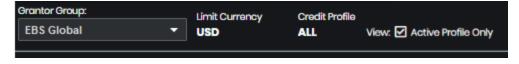
- (ALL) One-Poolcredit: Applies to EBS activity between two counterparties for All products.
- (TWO) Two-Poolcredit: Users can designate specific and distinct credit to Spot products and Forwards (NDF).

Both One-Pool and Two-Pool limits may be set but only the limits applicable to the selected Credit Profile will be effective and appear in green. The selected credit profile is indicated next to the Grantor Group.

These credit profile selections may only be changed with assistance of the EBS Market Control.

The active Credit Profile will be displayed by default – the ViewActive Profile Only checkbox will be selected.

Removing the selection will also display the inactive credit profile

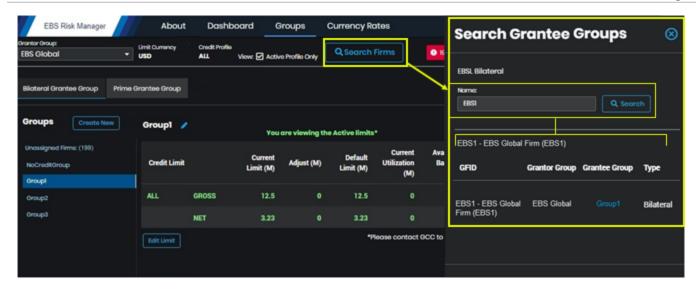


To also view the inactive credit profile, uncheck the **View** checkbox.

Search Firms

Use the Search Firms (Qsoorch Firms) function to search for firms associated with permissioned Grantor Groups.

Upon selecting **Search Firms**, a panel opens to search (by Globex Firm ID (GFID) or long name) for firms assigned to the Grantor Group.



Search results will display:

- · Firm: Name and GFID
- Associated Grantor Group(s) and Grantee Group(s).

Via the Grantee Group linked users can select the linked Grantee Group profile.

2. Notification

A user notification of the number of firms that are *Unassigned* or have not been placed into a *Grantee* Group or the No Credit Group.

A red banner appears when firms are unassigned.

Select the *Unassigned Firms* to view a list of firms that need a credit decision.

3. Group Members

Select **Group Members** to view a list of firms that are members of the *Grantor* Group.

4. Bilateral Grantee Group / Prime Grantee Group

Depending on the <u>Risk Admin's</u> role, Bilateral and/or Prime, the user can extend Bilateral and / or Prime credit by maintaining firms within Bilateral Grantee Groups and Prime Grantee Groups.

Users can manage Bilateral Groups, Prime Grantee Groups or both and will be able to view the appropriate tabs.

When selecting either the Bilateral or Prime Grantee Group tabs, users can manage firms and their limits for Grantee Groups

5. Grantee Groups

A list of *Grantee* Groups that have been created under the selected Grantor Group will be displayed when selecting either the Bilateral Grantee Group or Prime Grantee Group tabs.

An Unassigned list appears for the Grantor Group if there are any Bilateral or Prime firms that are not assigned credit to a *Grantee Group* or the *No Credit Group*.

If all firms are assigned to a Grantee Group (or No Credit Group) the Unassigned list will not appear.

When a Grantee Group is selected, its assigned firms and limits will appear. Admin users can manage the firms and set limits.

The center panel displays the Limits set for the Grantee Group for each credit limit type and selected credit pool.

- Active limits appear in green.
- Limits that appear orange have been set by users but are not effective until synced with downstream systems; once synced they will appear in green.

• Non-active credit pools that appear in white text are configured by the risk admin. Switching the credit profile from *All* to Two or Two to *All* can be coordinated with EBS Market Control.

A No Credit Group may be created for the Grantor Group.

Users can assign firms to this No Credit Group to prevent trading with them.

The creation and removal of the No Credit Group can be managed internally by EBS Market Control only.

To have a No Credit Group created, Contact EBS Market ControlUS + 1 877-278-0643.

Group features:

- Modify Grantee Group: Admin users can select the pencil icon (Group) on modify the Grantee Group name.
- Refresh: Select () to manually refresh / update Current Utilization and Available Balance amounts.
- Edit Limit (Edit Limit): Admin users can set and modify limits.

Group details:

- Current Limit: Limit displays the limit enforced for the current trading day.
- Adjust: Indicates the amount of credit added to or reduced from the Current Limit value. This field may be modified.

 This value will reset to 0 at the end of the trading day.
- Default Limit: The default daily credit for the Grantee Group.

This field can be edited and, when an existing Default Limit is modified, the modified limit becomes the Current Limit at the start of the next business day.

If the Default Limit is set for the first time, it becomes the Current Limit immediately.

- **Current Utilization**: Credit exposure based on trades (bilateral credit) or trades and orders (prime credit) for the current trading day.
- Available Balance: Amount of credit remaining for the current day.

This value equals the *Current* limit + *Adjust* value – *Current Utilization*.

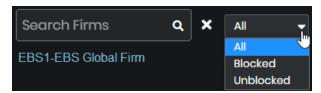
• Warning %: Value may be set for receiving alerts.

Alerts can be viewed in the <u>Alerts Dashboard</u> and sent via email, when an email distribution list has been created. This field can be modified.

6. Firms

A list of firms, expressed in the format: [Globex Firm IDs (GFID) - firmname], that have been selected for the Grantee Group. The Grantor Group may extend credit for trading which is applied to all firms in the Grantee Group collectively.

The Search field can be used to find any firm in the list and includes a drop-down filter to view All / Blocked / Unblocked firms.



The following functions can be performed from the Firms panel.

Blocking Firm in a Bilateral Grantee Group:

- To prevent trading with the selected firm (in the Bilateral Grantee Group), select the block icon ().
 A confirmation message appears and requires a selection before the firm can be blocked.
- 2. Confirm the selection.

The firm will be blocked from trading with firms in the Grantor Group and will appear in the list of firms in red.



Unblock Firm:

- 1. To resume trading with the selected firm, select the red **Unblock Firm** icon for the listed firm.
- 2. **Confirm** the selection.

The firm will be unblocked and will appear in the default color.

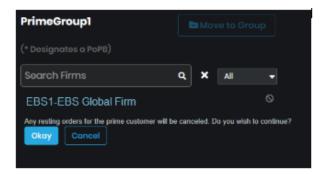
Blocking a Firm in a Prime Grantee Group

Blocking a firm in a *Prime Grantee* Group is similar to blocking a firm in a *Bilateral Grantee* Group.

When attempting to block a firm in a Prime Grantee Group a message will be displayed indicating that *blocking a firm will cancel all resting orders for that firm*.

The firm will be blocked once the message is confirmed.

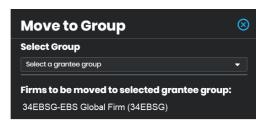
- 1. To prevent trading for the selected firm in the Prime Grantee Group, select the **block** icon (). A confirmation message appears and requires a selection before the firm can be blocked.
- 2. **Confirm** the selection.



The firm will be blocked from all trading and all resting orders for the firm are canceled.

Move to Group:

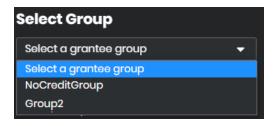
1. To move selected firms to a different Grantee Group, selecting one or more firms, then select **Move to Group** button.



A side panel appears with the highlighted firms listed and an option to select another Grantee Group.

2. **Confirm** the selection.

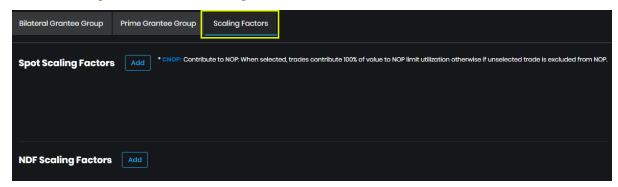
The firms will appear in the new Grantee Group.



Scaling Factors

Scaling factors apply only to Bilateral credit relationships, only bilateral risk admins can view and set scaling factors.

To access Scaling Factors, select the **Scaling Factors** tab.

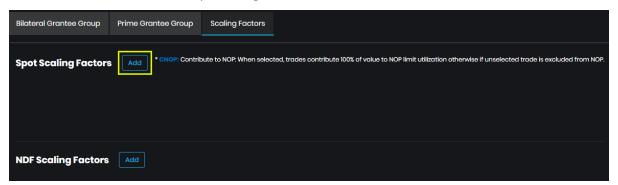


Spot Scaling Factors

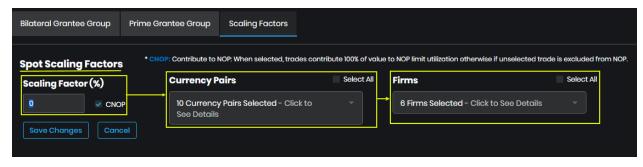


To open the selection of Currency Pairs and Firms for which a scaling factor value may be set:

1. Select the **Add** button next to the Spot Scaling Factors.



2. Select Currency Pairs, Firms and set a Scaling Factor Value.



3. To save the selections and scaling factor value, select **Save Changes**.

When trading a selected spot currency pair with a selected counterparty firm, gross utilization amount of the trade will be multiplied by the scaling factor % value reducing the utilization for any value less than 100%. Spot scaling factors may be set in one percent increments from 0 to 100 percent.

The CNOP flag indicates whether or not to contribute the full credit utilization value of a trade towards NOP utilization when trading a selected currency pair with a selected firm. The CNOP flag is selected by default. If CNOP is unselected, trades in the selected currency pairs with the selected firms will not contribute to NOP utilization.

NDF Scaling Factors

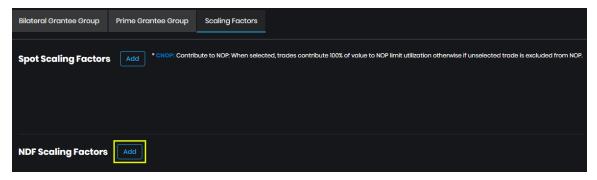
NDF Scaling Factors are used to determine gross credit utilization.

Similar to Spot Scaling Factors, currency pairs and counterparty(ies) must be selected for each NDF Scaling Factor.

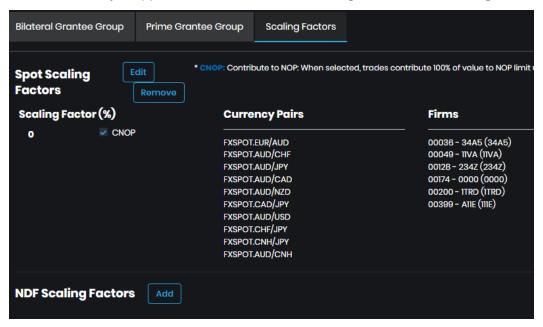


To add an NDF scaling factor group:

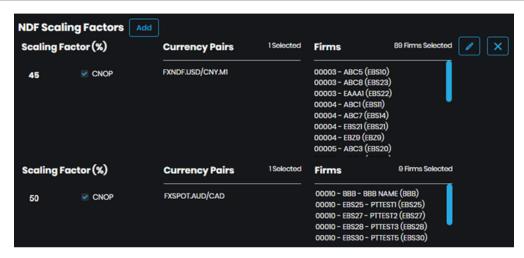
1. Select the Add button next to NDF Scaling Factors.



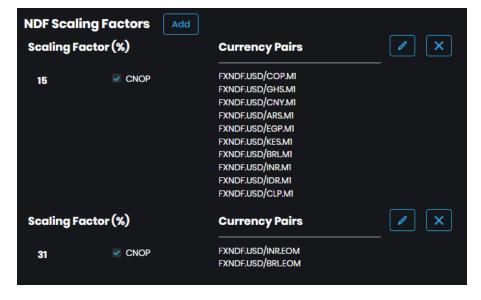
2. Select the Currency Pair(s) that should be attributed the scaling factor, then set a Scaling Factor value.



The following NDF scaling factors will apply to all bilateral counterparties and are used to determine gross credit utilization.



- Multiple Scaling Factor groups can be set for NDF instruments.
- Each NDF instrument can only be in one scaling factor group and each scaling factor group must have a unique scaling factor value.
- NDF scaling factor values may be set from 0 to 200 percent in one percent increments.



Liquidation Mode

Liquidation mode can be applied to Prime Grantee Groups only. Firms within the Prime Grantee Groups in Liquidation mode can only submit orders that maintain or reduce their net exposure. All other orders will be rejected.

In liquidation mode, once exposure is reduced, it cannot be increased.



To activate Liquidation mode:

1. Select the **pencil** icon.



2. Select the Liquidation Only checkbox, then select the checkmark ■ to submit (or cancel ■) the update.



3. Confirm the warning dialog and the Liquidation mode will become active.

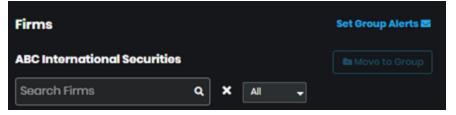
On the Dashboard any Grantee Group that is in Liquidation mode will be indicated with an asterisk.



Setting Up Email Alerts

Users can set up email alerts to be informed of any Warning% or rejects for their firm. Alerts may be set up by Bilateral or Prime depending on the Grantor Group permissions.

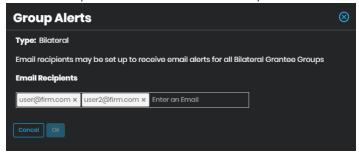
A button to Set Alerts will be available on the Bilateral or Prime Grantee Group tabs.



Bilateral Grantee Group

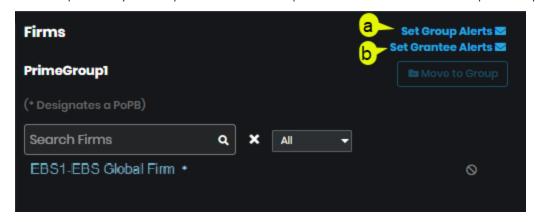
Email recipients may be set up to receive email alerts when the Warning % and rejects are generated for any Bilateral Grantee Group.

Users can set up to 20 email recipients to receive Warning%, Critical and Reject alerts for all the Bilateral and / or Prime Grantee Groups for the selected Grantor Group.

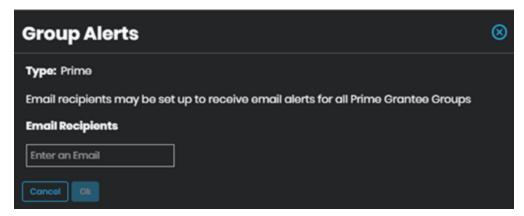


Prime Grantee Groups

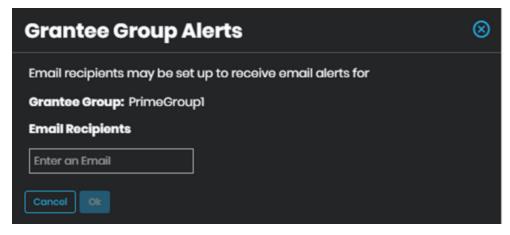
Email recipients may be set up to receive alerts for permissioned Prime Grantee Groups or for specific Prime Grantee Groups.



a. Select **Set Group Alerts** to set email alerts for all Prime Grantee Groups.



b. Select a Prime Grantee Group and then Set Grantee Alerts to set email alerts for a specific Prime Grantee Group.



Currency Rates

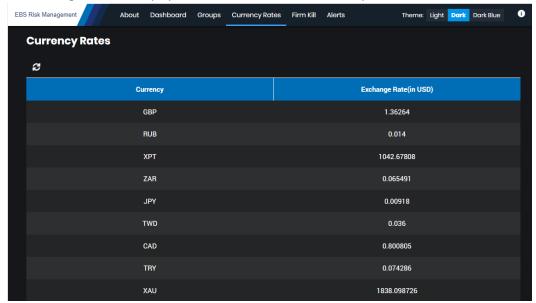
The Currency Rates screen provides the currency exchange rates used to convert the currencies being traded (base currency) to the credit limit currency.

Exchange rates are updated once at the end of the week at 5:00 PM EST.

Currency rates are quoted in USD and used to determine credit utilization.

Currency rates can be updated manually by EBS Market Risk Admins when required and will be updated on the display.

The exchange rates are displayed based on 1 unit of base currency to the amount of USD.





Note: To view recently updated (daily / manual) Exchange rates, select the Refresh () icon.

Firm Kill

Bilateral Risk and Prime Risk Admins can use the Firm Kill function to prevent firms, for which they are direct parent, from trading.

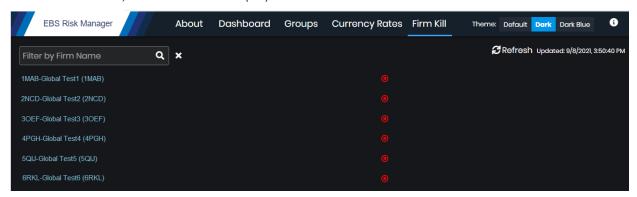


Example: Prime Customers, Prime-of-Prime Brokers and Prime-of-Prime Customers

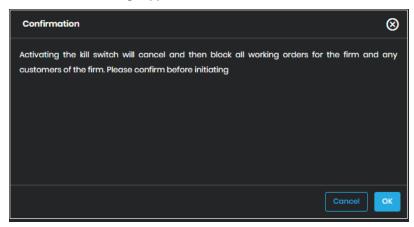


To prevent a firm from trading:

- 1. Select the Firm Kill menu.
- 2. From the list of firms, select the **Kill** button ().

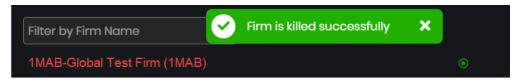


A confirmation message appears.



3. Select **OK** to confirm.

The firm's trading will be suspended and the firm name will appear in red.



- Killing a Prime Customer (PC) or Prime of Prime Customer cancels their resting orders and prevents new order entry.
- Killing a Prime of Prime Broker (PoPB) cancels all of the POPB's Prime of Prime Clients (PoPC) resting orders and prevents new order entry.

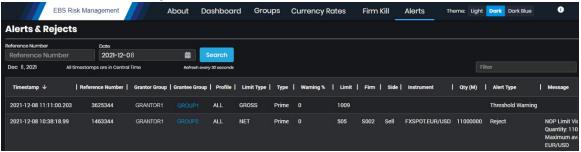
Alerts and Rejects Dashboard

The Alerts Dashboard provides a view of alerts generated for Grantee Groups.

A Warning % can be set on each Grantee Group's Gross and Net limits. If those warning thresholds are hit or exceeded during the course of the trading day, or if a reject is generated then alerts will appear on the dashboard.

During a single trading session, users may receive up to one Warning % level breach and one reject per credit type for each Grantee Group unless the daily limit is adjusted during the trading day; Warning % alerts and rejects will then be based off of the new limits.

- The Threshold Warning displays the details of the Warning% breached for each credit type.
- A Critical Alert will indicate when limit usage has hit or exceeded 90%.
- The Reject alert will provide additional details of the reject itself including the firm entering the order, side, instrument and the reason for rejection.



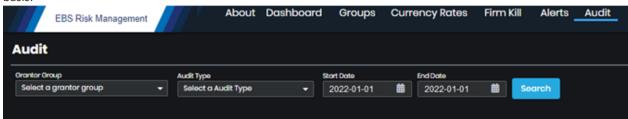
- Reference Number: A reference number is included on all email alerts and may be used to search for details of the
 email alert.
- **Date**: The current date will be defaulted and all alerts generated on the current date will be displayed on the Alert Dashboard. This date may be modified to search for alerts on a specific date.
- Filter: A search for any text on the Alert Dashboard.



Note: All timestamps are in US Central Time (CST).

Audit Trail

An Audit Trail that captures updates made in the EBS Risk Management application is available for all users on a view only basis.





To search for Audit Type information:

- 1. From the Audit function, Select a **Grantor Group**.
- 2. Selecting an Audit Type to view a list of audit information available for search, including:
 - Credit: When Credit is selected an Event Type selection will be required to further filter results for:
 - Grantee Groups
 - · Limit settings
 - Disallow settings for allowing / disallowing firms
 - Liquidation settings on Prime Grantee Groups
 - Email
 - Kill Switch
 - Scaling Factors
- 3. Specify Start / End date to search for activity within a range.

The current date is selected by default.

4. Select Search.

Results will include all modification details, including the person that entered the update and timestamp, for the selected date range.